

## Role of Liver and Bone Scanning in Evaluation of Possible Metastatic Disease

IN SPITE OF continuing improvements in equipment and radiopharmaceuticals, the detection efficiency of the liver scan for liver metastasis remains in the 70 to 80 percent range. However, this lack of improvement in accuracy must not be taken as an indication that the scan is not efficacious. A recent National Institutes of Health study again indicates that liver scanning may be more sensitive than the usual clinical or laboratory measurements—serum glutamic oxalic transaminase (SGOT), serum glutamic pyruvic transaminase (SGPT), lactic dehydrogenase (LDH), bilirubin, alkaline phosphatase—in detecting hepatic metastases.

The evaluation of the bony skeleton has previously been accomplished by the radiologic skeletal survey. However, the bone scan, aided by newer bone-seeking radiodiagnostic agents, has been found to be a more sensitive diagnostic modality. In the face of metastatic disease, results in patients who are given both a bone scan and a skeletal survey will be positive on the scan and normal on x-ray studies. Conversely, abnor-

mal findings on skeletal survey with normal results on bone scan are rare. Abundant recent literature supports the conclusion that the bone scan is the diagnostic method of choice for skeletal evaluation. The bone scan is particularly useful in carcinoma of the lung, breast and prostate, as well as in lymphomas.

Though the bone scan is highly sensitive, its lack of specificity must be noted. To avoid the problem of false positive readings on bone scans, a single x-ray film of the area shown to be abnormal on bone scan should be obtained to exclude nonneoplastic causes of increased osteoblastic activity such as trauma and metabolic, inflammatory or degenerative abnormalities. Initial use of the bone scan for skeletal evaluation will avoid diagnostic overkill, reduce the cost of having both a complete skeletal survey and bone scan and still ensure the highest degree of diagnostic accuracy available in the pretreatment evaluation of neoplastic disease.

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### REFERENCES

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